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ABSTRACT

Recognizing that the real problem with innovation is the need to shorten the time required for its acceptance and application, this project identifies strategies beneficial to the change agent. Assuming he understands the process of change and the role of opinion leaders, the change agent can direct his attention to the guidelines presented for: (1) identifying opinion leaders, (2) identifying school systems in which opinion leaders work, (3) influencing opinion leaders, (4) assisting opinion leaders in dissemination, and (5) achieving mass adoption. These guidelines, developed from a review and analysis of selected literature, offer a synthesis of current thought. (JS)

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An Application of Research

WORKING WITH OPINION LEADERS TO ACCELERATE CHANGE IN VOCATIONAL-TECHNICAL EDUCATION

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PREFACE

This application of research on *Working with Opinion Leaders to Accelerate Change in Vocational-Technical Education* should aid researchers, teacher educators, state supervisors, and other change agents in assessing the current "state of the art" in the field. The compact nature of the review and its organization into guideline format should be of assistance to practitioners in identifying current research findings and innovative practices to improve operating programs. It should also assist in identifying voids in our present research framework and enhance future studies on the change process, both in terms of their substantive focus and methodological approaches.

This research review is one of a series of information analysis papers released by the ERIC Clearinghouse on Vocational and Technical Education. Those who wish to examine primary sources of information should utilize the bibliography. Where ERIC document numbers and ERIC Document Reproduction Service (EDRS) prices are cited, documents are available in microfiche and hard copy forms.

The profession is indebted to Garry R. Bice for his scholarship in the preparation of this report. Recognition is also due Jay Smink, director, Research Coordinating Unit for Vocational Education, Harrisburg, Pennsylvania; Frances Parker, head, Department of Home Economics, University of Idaho; and William Hull, vocational education specialist, The Center, for their critical review of the manuscript prior to its final revision and publication. J. David McCracken, information specialist at The Center, coordinated the publication's development.

Members of the profession are invited to offer suggestions for improvement of information analysis papers and to suggest specific topics or problems for future reviews.

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and Technical Education

INTRODUCTION

Statement of the Problem

Research has shown that it may take up to 50 years from the time an educational innovation is first introduced to the time it enjoys widespread use among teachers. If this is the case, then our schools are only now receiving the benefit of what was being developed back in the 1920's. One of the major problems in education today is the need to develop strategies that will facilitate the introduction of an innovation and have it adopted by a majority of administrators and teachers in the shortest period of time.

Several researchers in the field (Havelock, 1969) have suggested that changes take place and innovations diffuse throughout audiences through a social interaction process. This model suggests that persons, known as influentials or opinion leaders, play a major role in the diffusion of innovations. Lionberger (1960), Rogers (1964), and others have conducted several studies to determine the function and role of opinion leaders in the change process and the diffusion of innovations. However, most of the earlier studies concerned with opinion leaders were completed in the areas of rural sociology and agricultural extension, with the main subjects involved being farmers. Only relatively recently have educational researchers become concerned with the opinion leadership phenomenon as it relates to the diffusion and adoption of educational innovations among teachers.

It is assumed that teachers change (adopt educational innovations) following the pattern suggested by Rogers and others in their studies. The five stages of the change (adoption) process are awareness, interest, evaluation, trial, and adoption (Rogers, 1964). Extrapolating appropriate models, techniques, and procedures from rural sociology and agricultural extension, Hensel and Johnson (1969) conducted an investigation of the personal and social characteristics of teachers, comparing those who were considered to be opinion leaders with their peers. The subjects of this investigation were teachers of agriculture. Parker (1969) conducted a similar investigation among home economics teachers. These studies have yielded some valuable information for state supervisors, teacher educators, and others in the field of vocational-technical education.

One of the problems, however, is to condense the massive amount of information available, related to the change process and opinion leadership among teachers, and put it into a manageable form which can be used effectively by change agents to bring about desirable change in the field of vocational-technical education.

The purpose of this document is to summarize research studies and related materials and to develop and suggest some guidelines which change agents may use in working with opinion leaders to bring about change in vocational-technical education. The paper is not intended to be a complete review and synthesis of research related to the change process in education, nor is it intended to compare strategies for the diffusion of innovations.

Description of the Bibliography

Literature reviewed for this report included a computer search of the documents in central ERIC as listed in *Research in Education* (RIE), utilizing the following descriptors:

	Agricultural Education	and	*Change Agents
or	Business Education	or	*Information Dissemination
or	Distributive Education	or	*Educational Change
or	Health Occupations Education	or	*Informal Leadership
or	Home Economics Education	or	*Adoption
or	Technical Education	or	*Changing Attitudes
or	Trade and Industrial Education	or	*Diffusion
or	Vocational Agriculture	or	Communication (thought transfer)
or	Vocational Education		
or	Cooperative Education		
or	Employment Programs		
or	Job Training		

One of the descriptors in the left hand column had to appear in the resume with one of the descriptors in the right hand column. The asterisks indicate major descriptors.

In addition, a manual search of *Current Index to Journals in Education* (CIJE) was completed using similar descriptors. Additional information sources were obtained from the libraries at the University of Tennessee and The Ohio State University. These reference tools, along with additional information sources, are listed in the last section of the bibliography.

Organization of the Bibliography

The bibliography is divided into two sections. Listed first are those reference materials which were obtained through the computer search of RIE. This material includes the bibliographic data and ED numbers as obtained from the computer printout. The second part of the bibliography contains a listing of books, pamphlets and journal articles utilized in developing this report.

The bibliography is selective; it includes only those materials used directly in the preparation of this report. These materials should be consulted for more detailed information concerning the several topics considered here.

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ANALYSIS OF THE LITERATURE

In order to achieve the objectives for which this report was written, this section will be divided into four areas. First to be considered will be methods and techniques for identifying opinion leaders or influentials among teachers. The second section will include information and guidelines which might be followed for influencing opinion leaders. The third section includes information and guidelines for assisting change agents in helping opinion leaders in the dissemination of educational innovations. The final section suggests guidelines for change agent use in achieving mass adoption.

In order to avoid misinterpretation of some of the ideas and thoughts in this paper, a few terms must be defined. *Change agents* are individuals or groups attempting to bring about change or aiding those attempting to accomplish change (Jones and others, 1968). Rogers (1964) considers the *diffusion process* to be the spread of a new idea from its source of invention or creation to its ultimate users or adopters. *Dissemination* is a controlled process of multi-media communications through which information is passed to and gathered from target audiences in order to establish levels of awareness (Simmons, 1968). In more simple terms, dissemination is "getting the word out." An *innovation* is an idea or something perceived as new by an individual (Rogers, 1964).

Identifying Opinion Leaders

In addition to studies completed in the area of rural sociology and agricultural extension by Rogers and Burdge (1962) and Gubbels and Verner (1967), a limited number of studies have been completed in the area of education. Studies in the specific area of vocational and technical education have been completed by Hensel and Johnson (1969), Parker (1969), and Bice (1970). It is apparent that in identifying opinion leaders among teachers, two particular areas need to be considered. These are the personal and social characteristics of individual teachers and characteristics of the school systems in which the teachers work.

Most of the work completed in education, and specifically, vocational education in the area of identifying opinion leaders among teachers, was completed at The Center for Vocational and Technical Education at The Ohio State University. Hensel and Johnson (1969) conducted a study in which they compared three methods of identifying opinion leaders among teachers of agriculture. The three techniques used were: 1) the sociometric technique, 2) the self-designating opinion leadership technique, and 3) the key informant technique. They concluded that the self-designating opinion leadership scale did not discriminate between opinion leaders and their peers and suggested that the lack of discrimination was probably caused by the tendency of all teachers to rate themselves high on the self-designating opinion leadership scale. However, the researchers did conclude that district

supervisors of vocational agriculture were able to identify opinion leaders in specific areas of the vocational agriculture program in the same manner in which teachers identified opinion leaders. Parker (1969) concluded that utilizing opinion leaders was a strategy that could be used for implementing change in vocational homemaking.

The above mentioned studies would suggest that district supervisors and perhaps state supervisors can reliably identify opinion leaders among a specific group of teachers and that those opinion leaders are vital elements in the process of change.

In sifting through the research, several guidelines seem to be emerging. State supervisors, district supervisors, or other change agents readily can identify opinion leaders among a group of teachers by considering the following personal and social characteristics of the teachers:

1. Opinion leaders are older than their peers.
   Opinion leaders are usually in the 35-45 year age group.
2. Opinion leaders have had more total years of teaching experience.
3. Opinion leaders among teachers have taught for a longer period of time in their present job.
4. Opinion leaders among teachers are those who have enrolled in a greater number of in-service training programs.
5. Opinion leaders among teachers participate in more social and professional organizations and activities in their local communities.

In addition to characteristics of the teacher, it must be remembered that a teacher does work within a school system, and that characteristics of that system should be considered when identifying opinion leaders.

In identifying school systems in which opinion leader teachers are likely to work, the following guidelines are suggested:

1. Opinion leader teachers work in larger school systems (e.g., 1,500 to 2,000 students rather than 500 or 600 students).
2. Opinion leaders work in school systems which have a higher per pupil expenditure.
3. Opinion leaders work in school systems in which a high percentage of the teachers participate in in-service training programs.
4. Opinion leaders work in school systems in which there is a 10 to 15 percent turnover in teaching staff each year.

A personal and professional profile of the teacher who would most likely be an opinion leader and influence a large number of teachers might look something

like this: a teacher, 35 to 45 years of age, who has been teaching in his school system for approximately 15 years and who participates in a number of social activities in his community as well as many in-service training programs, works in a school of about 1,500 students, grades 9-12, with a 10 to 15 percent turnover of teachers each year, and with a fairly high per pupil expenditure.

If a change agent could identify a teacher working in the situation just described, he could be fairly sure that the teacher would be an opinion leader among a large number of teachers.

One important caution should be mentioned at this point. Change agents should not limit or equate opinion leadership with innovativeness. Hensel and Johnson (1969) identified opinion leaders in the late majority and laggard categories on the adopter scale as well as in the innovative and early adopter categories. In addition, Christiansen and Taylor (1966) found that the more innovative teachers were younger and had fewer years of teaching experience. However, Christiansen and Taylor did not conclude that the innovative teacher was also an opinion leader.

Influencing Opinion Leaders

There is a lack of vocational-technical education research in the area of change and the change process. However, we do know many of the personal and social characteristics of opinion leaders which permit us to hypothesize some ways in which opinion leaders may be influenced.

Christiansen and Taylor (1966) suggest that in the innovation-adoption process, teachers are influenced by different sources at the awareness stage, the interest stage and the adoption stage. This would indicate that change agents must use a variety of methods and techniques to move opinion leaders from the awareness stage through the adoption stage.

Black (1969) found that teacher attitudes toward research had not changed after a three-week workshop on research. Brown and Hartman (1968) discovered that certain farmers were influenced by demonstration farms set up in their communities. This suggests the possibility that opinion leaders among teachers could also be influenced by visiting demonstration and pilot programs.

Although research evidence in the field of education is scarce and not yet conclusive in the area of influencing opinion leaders, we may combine what is known in education with what is known in the field of rural sociology and agricultural extension and advance the following generalizations:

1. Opinion leaders use more technically accurate sources of information.
2. Opinion leaders use sources of information requiring only a small amount of personal time.
3. Opinion leaders are more cosmopolitan in nature.
4. Opinion leaders will turn to district supervisors and/or state supervisors as sources of information before they will turn to teacher educators.

With this information, it seems logical that the following guidelines may be used for influencing opinion leaders among teachers:

1. Opinion leaders (as identified in the previous section) should be involved in an extensive series of short, intensive workshops and/or seminars involving researchers as resource persons and other educational personnel who are experts in modes of introducing innovations. However, teacher educators and state supervisors would not necessarily have the most impact upon the opinion leader.
2. Workshops or seminars of the type suggested should be limited to one or two days in length.
3. Resource persons used should be very close to the subject matter area which the opinion leader teaches.
4. These workshops and seminars should be taken to the teacher rather than to have the teacher travel a long distance to the seminar.
5. The same teachers should not be expected to be opinion leaders in all areas of the instructional program.

One caution should be noted at this juncture. Since it is not yet known whether or not an opinion leader remains an opinion leader after he has been so identified, singling out opinion leaders and involving only them in workshops and seminars should be practiced with great caution. It is not yet known whether the opinion leader continues to be an opinion leader among his peers once they are aware of his influential powers.

Assisting Opinion Leaders in Dissemination

In planning for the introduction of an innovation among teachers, it is of prime importance that an overall strategy for the introduction of the innovation be planned. The plan to work with opinion leaders to introduce innovations should consider such things as the overall approach to be used in selling the proposal to the audiences, the amount and type of information to be given to each group, the specific method to be used in reaching different audiences, the point at which information items are to be released, the media to be used, the techniques by which a change may be implemented, and the methods of publicizing the change. (Simmons, 1968)

No single approach is going to initiate the change among all teachers in the system. Therefore, the change agent must identify the probable opinion leaders he wants to work with; generally, the fewest number of opinion leaders that will influence the greatest number of teachers is considered the best approach. Consider these opinion leaders individually, then decide how to help those teachers pass on the suggested innovations. The supervisor or change

agent should not expect opinion leaders to be responsible for diffusing completely the idea among all teachers. Opinion leaders need help. For example, opinion leaders should be informed as to whether the change is child centered, financially beneficial, research oriented, teacher centered, or community or society centered. With such information, the opinion leader can endorse or disapprove of the change and consequently be a more effective gatekeeper in the change process. The change agent should also assist the opinion leaders by utilizing such techniques as: 1) involving (either voluntary or mandated) other teachers to be affected by the change; 2) arranging for demonstrations of the benefits of the suggested change; 3) utilizing techniques, such as administrative edicts, to make the change possible within the current structure; and 4) introducing secondary changes which will facilitate the primary change.

The primary change agent (state or regional supervisor or other) also can assist the opinion leader by publicizing the desired change; utilizing the opinion leader in change sessions, workshops, and/or seminars; and by developing techniques or methods by which the opinion leader and the innovation are exposed to a large number of teachers.

The literature reviewed leads to the following guidelines:

1. Opinion leaders in specific subject matter areas should be utilized in planning for the development of a strategy for implementing a a change.
2. Opinion leaders should be utilized in change sessions, workshops, and seminars, since they are more likely to be able to communicate with their fellow teachers.
3. The activities and accomplishments of opinion leaders should be brought to the attention of other teachers.
4. Opinion leaders should be given the opportunity to attend conferences, seminars, and other types of meetings in which new ideas are mentioned or disseminated. In this way, the opinion leader will have firsthand evidence and will himself accept the change or innovation more readily.

Achieving Mass Adoption

For reasons that are not yet completely understood, many people look upon a change as a threat to their security. As suggested earlier, however, some teachers accept change and adopt educational innovations more readily than others. This leads to the condition where, among a single group of teachers, there are: 1) some teachers who are innovators; 2) some who are early adoptors; 3) some teachers classified as the early majority who adopt innovations at a relatively early time; 4) a number of teachers, called the late majority, who adopt innovations after a

large number have adopted and demonstrated the "value" of the innovation; and 5) a group of teachers called laggards, who adopt innovations only after most other teachers have adopted the innovation. With this knowledge of the make-up of a group of teachers, change agents (i.e., supervisors) must utilize a multi-media and systematic type of approach to introduce innovations.

Attaining mass adoption of any innovation, change, or improvement in the vocational-technical education program in a state must of necessity begin with the development of a comprehensive and detailed plan. This plan must consider the three components of change (the teacher, the school, and the innovation) in detail.

The Teachers: Opinion leaders among a group of teachers can be identified perhaps by district or state supervisors or other key informants. In the same way, other groups of teachers must be identified, including the late majority and the laggards.

The Schools: School systems which seem most likely to "sanction" the change being contemplated should be identified as well as those school systems which are "more difficult to move" or adopt innovations more slowly. It is important that all school systems be considered and provided for in the overall plan.

The Innovation: The third major step in achieving mass adoption is to consider the innovation, change, or improvement itself. In a report compiled by Christensen (1966), Robertson suggested that change agents consider the overload that the change might impose on teachers, stresses that may be involved in the change, and cost and rewards connected with the change.

Change agents must then determine how the innovation under consideration can best be introduced. Occasionally, an administrative mandate is necessary. Sometimes, permissive legislation is needed. And some changes may come about through the "natural" process of diffusion.

The Plan: In formulating the plan for mass adoption then, the first step is to consider the three prime areas discussed above, (the teacher, the school, and the innovation). The second step is to consider how each teacher in each school system becomes aware of, gets interested in, evaluates, and decides to try the innovation under consideration. The third step would be to design a plan for disseminating the innovation, utilizing a multi-media approach to assure mass adoption.

Hensel and Johnson (1967) suggest that mass mailings of information related to an innovation may be an effective means of making a large number of teachers aware of an innovation in a short period of time. This technique would be better to use than to depend upon the social interaction process in helping teachers reach the awareness stage.

Lee (in Baird and Campbell, 1966), Tuttle (in Hull, 1968), and others have suggested strategies by which supervisors and teacher educators may promote mass adoption and the process of change.

An overall plan for disseminating and achieving mass adoption of an in-

novation must include elements for reaching two key groups, the change agent (supervisor, consultant, teacher educator, etc.) and the user (the teacher). At the state level, the following guidelines are suggested:

1. Develop a regular system for problem identification. What systems or teachers are not being reached? Who influences these groups and what methods or techniques can be used to reach them? What staff members may be most effective in communicating ideas, changes, etc. (Magisos, 1963).
2. Designate or create a special agency in each region of the state to: a) identify problem areas, b) organized and carry out a multi-media dissemination program, c) identify opinion leaders, and d) provide necessary advice and technical assistance.
3. Develop an incentive system in order that individuals in universities and school systems may carry out their own development and demonstration projects.
4. Require that development projects include strategies for dissemination.

When it gets down to the "nuts and bolts" of planning for the dissemination of innovations geared to achieving mass adoption, strategies need not be complicated but they must be comprehensive. The change agent must keep in mind that teachers in each of the adopter categories (innovator, early adopter, early majority, late majority, and laggard) become aware of innovations through different sources and at different times. A "one-shot" dissemination plan won't work. The following guidelines are suggested:

1. Identify the points of multiple entry. Considering the audiences and the innovation, how can the innovation best be communicated? Is the innovation to be disseminated of a drastic change type? Is the innovation easily evaluated? How many other changes must the teacher make just to accommodate the one being disseminated?
2. Identify the exact points of entry. Who are the opinion leaders among the teachers in each of the adopter categories? What specific mass media sources are used by the target audience? What mass media sources can be used to insure a multi-media approach to dissemination? Which workshops, in-service training programs and seminars may be potent points of dissemination?
3. Identify temporary systems that may be used for dissemination. Which teachers (or other influentials) may be commissioned to "spread the word rapidly," by traveling from school to school or regional meeting to regional meeting? Which researcher may be commissioned to work directly with opinion leader teachers? Can a mobile unit be utilized effectively for disseminating a particular innovation?
4. Identify and provide needed follow-up services to teachers. Do certain teachers need on-the-job instruction in order to implement the change? Is there need to implement secondary changes in some cases? Is there need to help teachers in overcoming minor "mechanical type" problems? Do some teachers just need moral support?

SUMMARY STATEMENTS

The purpose of this paper was to take a look at research in the area of the role of opinion leaders in the change process and develop some guidelines which might have immediate and practical application for vocational educators. The intent was neither to overwhelm the novice nor oversimplify the situation for the experienced change agent. It was the intent to develop a set of practical guidelines which could be used by persons in vocational-technical education charged with the responsibility of the dissemination of innovations. The material in the text of this report, supplemented with the sources listed in the bibliography, should aid vocational educators in developing an effective strategy for the dissemination of innovation.

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